LOUISIANA
Conservationist
July-August 1982

Jesse J. Guidry, *Secretary*

comments...

In recent months there has been growing concern throughout Louisiana at the high rate of fatalities resulting from recreational boating. In many popular lakes and streams, hazardous operation of water craft presents a threat to swimmers, water skiers, persons engaged in the increasingly prevalent sport of tubing, and freshwater fishing.

Safe Boating Week, observed both nationally and at a state level June 5-12, focused grim attention on the fact that in 1981 there were 73 fatalities resulting from approximately two hundred reported accidents involving recreational boaters.

In a nutshell, there were 700 percent more fatalities from recreational boating accidents than from hunting accidents.

It causes me concern as well as the public, because the Department of Wildlife and Fisheries is charged with administration of the state's Uniform Pleasure Boating Act. At the same time, the department is the prime mover in hunter-safety education.

As is the case with hunter-safety training, wherein the department receives considerable assistance from volunteer instructors, we are assisted also in providing boating safety instruction by the Coast Guard Auxiliaries and Power Squadrons throughout the state.

For many years the U.S. Coast Guard itself was deeply involved in safe boating education. And, while its deep interest in promoting safe boating is as great as it ever was, the eight Coast Guard teams formerly making periodic checks throughout the state no longer exist.

We were advised June 14 by Capt. G.F. Viveiros, Jr., Chief, Boating Safety Division, Eighth Coast Guard District, that "cutbacks in the Coast Guard Recreational Boating Safety Program have resulted in the elimination of the Boating Safety Training Teams, leaving me with no on the water enforcement personnel."

I regret those cutbacks, but an agreement signed jointly in 1980 by the Secretary, Department of Wildlife and Fisheries, and Rear Admiral P.A. Yost, representing the U.S. Coast Guard, gives the state exclusive responsibility over those waters within the jurisdiction of the state.

The Louisiana State Police Water Patrol and other law enforcement agencies assist in boating law enforcement and promoting water safety, but the department is charged with primary water patrol authority and responsibility.

In 1981, the year during which those 73 fatalities took place, the department issued 6,958 citations for boating violations. Some 1,887 boaters were operating on open waters without P.F.D.s (life jackets). Some of the deaths that resulted from boating accidents would not have taken place if the boaters had been equipped with these basic safety devices.

In carrying out their assigned duties and responsibilities, wildlife agents logged 48,296 man hours of water patrol, along with 1,471 man hours devoted to search and rescue or search for drowning victims.

Additionally, some 6,000 man hours were spent by department personnel giving information, boating lectures, and attending school functions to present detailed programs on boating safety. Wildlife agents attended well over a hundred functions such as blessing of shrimp fleets, boat races, pirogue races, fishing rodeos and angling tournaments. All of this work was done in the interest of boating safety.

In addition to giving lectures and demonstrations pertaining to boating safety in all parts of the state, personnel in the Information and Education Division provided all state television stations with public service announcements aimed at fostering safe boating.

Even though much good work has been done by our enforcement, information and education personnel, as well as the Coast Guard Auxiliaries, Power Squadrons and other enforcement agencies around the state, I am convinced that we must expand our efforts along those lines in the months and years ahead.

The shocking statistics for 1981 which I mentioned certainly warrant additional efforts by the department to cut down the tragic loss of human life now associated with pleasure boating.

In announcing a concerted, expanded enforcement and educational program to be undertaken by the department to reduce recreational boating accidents, I urge our readers to make better use of the informational and educational services which the department is prepared to provide.

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Front and back cover *photography by Lloyd Poissenot illustrates examples of native and exotic bird species that can be seen in Louisiana zoos. The Great Horned Owl (front) is native to Louisiana and particularly plentiful in the state's southwestern prairies. The blue and yellow Macaw (back) is an exotic bird from Eastern Panama through Brazil.*

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Louisiana Zoos

An Urban Place for Wildlife

By Julia Murchison McSherry

Photography by Lloyd Poissenot

The shrill whistle of the North American wood duck, one of the most beautiful of waterfowl, pierces the early morning quiet. The notes are interrupted by the roar of the wakening Atlas lion, giant of beasts and virtually extinct. The Siberian tiger joins in. The sky is still dark but the sun is just peeping over the horizon and already there's a rustling of wildlife activity: stretching and chattering before the early morning feed when a new day begins.

Typical Louisiana woods or marsh scene? Hardly. But the wood duck, lion, and tiger plus many other wildlife species do live together in four Louisiana zoos in Alexandria, Baton Rouge, Monroe, and New Orleans. These species represent native Louisiana wildlife as well as exotic animals from Africa, Asia, and around the globe. Louisiana zoo animals range from the highly endangered species to common ones such as mallards and alligators, known well to just about all Louisianians. More and more, Louisiana's four zoos are playing an important role in conservation, wildlife education, and public recreation. They provide an urban place for wildlife.

Aside from utilizing animals for food, sport, and as beasts of burden, man has long been captivated by wild animals and the chance to see them. And because it is virtually impossible for the average person to ever see such foreign species as an elephant, giraffe, or the beautifully feathered macaw in the wild, man has been fascinated with zoos as a place to view such species. In ancient China, Egypt, Greece, and Rome, civilizations maintained avaries and aquariums for amusement, scientific, and educational purposes.

Zoos in the United States were begun in the 1850s and in Louisiana earlier this century around the 1920s and '30s. Alexandria, Monroe, and New Orleans all had zoos of sorts but it was not until the past decade that all three, plus a fourth zoo in Baton Rouge, have grown in acreage and number of animals to the present day centers of urban wildlife habitat. Modern day

Zoos are sometimes the only places where youngsters and adults can view certain native or endangered species.

zoos are no longer limited to recreational purposes alone.

Today's zoos go way beyond being just a recreational resource. Conservation of endangered species is a major concern. Some animals, extinct in the wild, occur only in zoos. The only known existing pair of red wolves in our state, for example, lives in New Orleans' Audubon Zoo. This species once roamed wild in Louisiana.

The brown pelican, our state bird, is common to all four Louisiana zoos. This species, once seen in great numbers along the Gulf coast, declined greatly in the 1950s due to pesticides and pollution. Although management programs have stabilized the decline of the species, the brown pelican is still considered endangered and most Louisianians are not so fortunate to see them in their natural coastal environs.

The alligator is another Louisiana species exhibited in zoos. Though once endangered, the alligator's comeback is quite a success story. Modern estimates of the statewide population hover around 500,000. However, many Louisianians, especially those who live away from the coast and wetland habitats where gators thrive in the wild, especially children, see Louisiana alligators, for the most part, in our zoos.

White-tailed deer, a favorite of hunters, are enjoyed by children visiting our zoos. Black bears are another big native wildlife attraction. At least fifty and perhaps as many as 400 bears still live in the wild in our state, mostly in the Atchafalaya Basin, however very few are sighted in the wild even by avid outdoorsmen. The Alexandria zoo has a particularly nice black bear exhibit.

Many residents don't realize Louisiana has quite a number of bobcats in the wild. But for those who haven't run across these felines in the woods, our zoos exhibit them. The Baton Rouge and Alexandria zoos have had particularly good bobcat breeding success which is something to brag about; not all wild species breed prolifically in captivity.

Specimens of many common Louisiana furbearers, nutria, otter, and raccoons, to name a few, trapped in the wild and valued for their marketable hides, are exhibited in Louisiana zoos.

Resident wood duck, mallards, snow and white-fronted geese, and most species of waterfowl live year 'round in Louisiana zoo ponds. Canada geese, which no longer migrate in great numbers this far south, can be seen at some zoos. In winter, the ponds are host to quite a number of temporary visitors, ducks and geese en route from their Canadian nesting grounds to more southern, warmer winter homes.

The bald eagle, our endangered national bird, as well as owls, hawks, and other raptors create an attraction in any zoo exhibit. All four zoos have very active raptor and bird rehabilitation programs in which injured birds, particularly rare ones such as eagles, can be brought to the zoo for treatment and release. Many broken wings have been repaired and lost youngsters nursed to adulthood at the zoos. Recovered birds are released in the wild while those with permanent injuries, such as a severed wing, that make it impossible for the bird to survive in its natural environment, are placed in avian exhibits for thousands of visitors to enjoy. Native Louisiana songbirds also thrive in zoos, both in exhibits, and outside in the zoological gardens.

A sampling of many of these Louisiana animals and birds can be seen at each of the four zoos. Audubon Zoo is in the process of setting up a special exhibit to spotlight native wildlife in a natural setting. The two acre Louisiana Swampland Exhibit,

A well-balanced farm pond of one acre can, under good conditions, provide up to 225 pounds of edible fish a year. If you have such a pond and you've noticed you're not catching many fish in it maybe you should consider getting some help from the Louisiana Department of Wildlife and Fisheries.

The department's Fish Division has a farm pond program which is aimed at increasing fish production in small ponds across the state. Last year fisheries biologists with the unit provided technical assistance and game fish fingerlings for 1,200 ponds, which averaged a little over three acres each. Department biologists also gave technical advice to another 500 pond owners.

Anyone who has a pond or is thinking about constructing one can get some help and some fish from the department. Pond owners can begin by ordering a copy of *Managing Louisiana Fish Ponds*, a technical booklet on small pond management, which is available from any department district office.

The next step, if the owner feels it's necessary, would be to contact a district office to talk to a fisheries biologist who can make an on-site inspection of the pond or proposed pond site, if needed.

Practical experience gained through many years of research now guides the department's program of providing technical assistance to pond owners. A landowner who's thinking about putting in a new pond should look for expert advice before doing so. There's a lot more to it than just digging a big hole and filling it with water. Soil types must be considered, levees and spillways must be properly designed, the water source must be reliable and its chemical content must be acceptable, to mention only a few points that must be looked into.

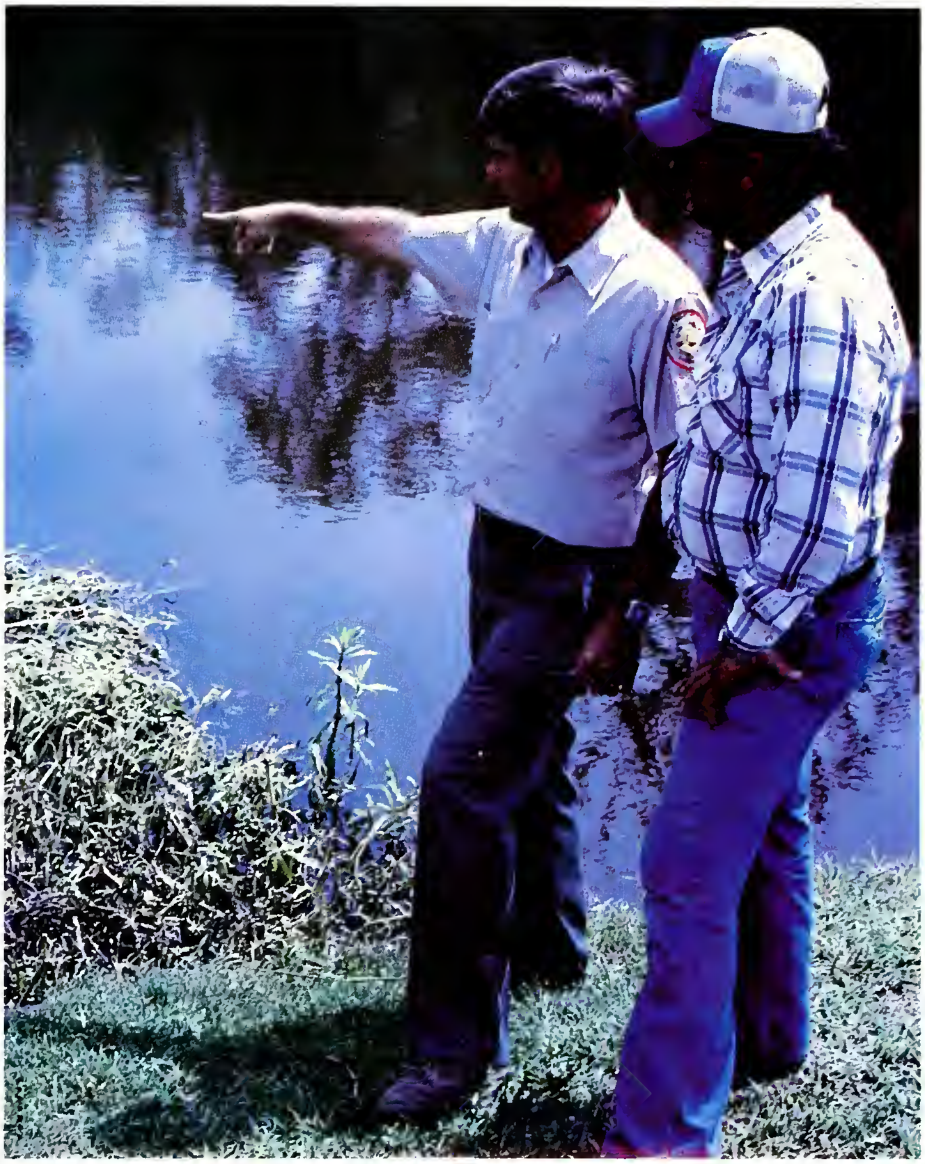
However, the department furnishes no money or equipment for pond construction.

Biologists can also visit established ponds and recommend what must be done to return these ponds to productivity. They can take and analyze seine samples, give recommendations on how to fertilize the pond, and recommend any needed changes in pond construction.

Perhaps the most important part of the farm pond program is that state and federal hatcheries make bream and large-mouth bass fingerlings available to pond owners.

However, to get the fingerlings a pond must have no fish population in it. That is, the pond must be newly contructed or if it's an old pond the fish population must be killed before stocking with fingerlings. It's not easy to restore an old out of balance pond to productivity and biologists believe it's best for the owner to simply start over from the beginning. Fish fingerlings are not stocked in old out of balance ponds for several reasons. Fingerlings may be eaten immediately by the larger fish or they simply add to the problem if the pond is already overcrowded with bream.

There are several ways to remove the fish from an old pond. The pond can be drained or all the fish can be


Clany Soileau

Department of Wildlife and Fisheries biologists provide technical assistance and game fish fingerlings to owners of farm ponds as part of the department's program to increase fish production.

seined out. Both of these methods can be impractical, either the pond is too large, or there's no way to drain it, or it's just too expensive.

Because of this, biologists recommend the use of rotenone, a biodegradable substance made from the crushed root of the derris plant. Rotenone asphyxiates fish by constricting the blood capillaries in the gills and is not dangerous to warm blooded animals.

Biologists recommend a 5% activated rotenone liquid or powder. The powder requires three pounds per acre foot, the liquid, three pints per acre foot. An acre foot is an acre of water one foot deep. Rotenone doesn't work well in water below 70° Fahrenheit and should be applied in August or September to clear the pond for stocking with bream in the fall.

Biologists may recommend that after applying rotenone the pond be fertilized before stocking.

When the pond is ready the procedure a pond owner must go through to get fish fingerlings from the department is simple. Write or call the fisheries biologist at your local district office and you will be sent an application. Fill it out and return it and wait to be notified.

Applications for fish fingerlings must be sent in by October 15 of each year.

The bream and largemouth bass fingerlings are produced in the three department hatcheries at Lacombe, Forest Hill, and Monroe and the federal fish hatchery at Natchitoches. They are netted from the hatchery ponds and carried to pre-determined sites around the state in specially equipped aerated tank trucks. Those requesting fish are notified where and when to meet the truck and to bring with them a large uncontaminated container with sufficient water, preferably from the pond to be stocked.

Bream (bluegill and redear sunfish) are given out from November to January and largemouth bass from May to June.

The bream will spawn that first summer and shortly thereafter the bass will have grown to be large enough to eat the bream young. Fish are stocked at the rate of one thousand bream to one hundred bass per surface acre of water.

Water quality at the hatchery ponds is checked regularly for ph or acidity, dissolved oxygen, temperature, and amount and types of zooplankton.

In recent years the hatcheries have provided an average of four million bream and 600,000 bass fingerlings for farm stocking every year.

As the pond matures the pond owner should be careful and not make the mistake of fishing too heavily for bass and allowing the bream to overpopulate. Anyone fishing a pond should try to take out from four to seven pounds of bream for every one pound of bass caught.

If the pond gets out of balance the bream overpopulate and stunt, that is fail to grow beyond a certain small size. When this happens research has shown bass simply stop reproducing. One reason that has been graphically documented on underwater film is that when the bream population becomes too great they eat the bass eggs before they have a chance to hatch. The bream are so hungry and there are so many of them that the bass are unable to keep them away from their nests.

There are other reasons why bream overpopulate. Poor pond construction or maintenance are two reasons. If there's too much cover for forage fish along the shore the predatory bass cannot get at the bream to keep their numbers under control.

If you're wondering "Is it worthwhile to go to all this trouble to construct a good balanced farm pond?" or "Does a farm pond really provide good fishing?" The answer is yes to both questions. A good farm pond can be an important source of food fish and many trophy size bass have been caught in farm ponds.

So, in short, if the old fishin' hole ain't what it used to be, maybe you should think about taking some steps to correct the situation. The first thing you could do would be to get in touch with one of the biologists whose name, number and address are included in this article.

Editor's Note: Bennie Fontenot is chief of the department's fish division.

Fingerlings are netted from the hatchery ponds and taken to the holding tanks to be checked and counted. Later, they're delivered in aerator equipped trucks to landowners all around the state.

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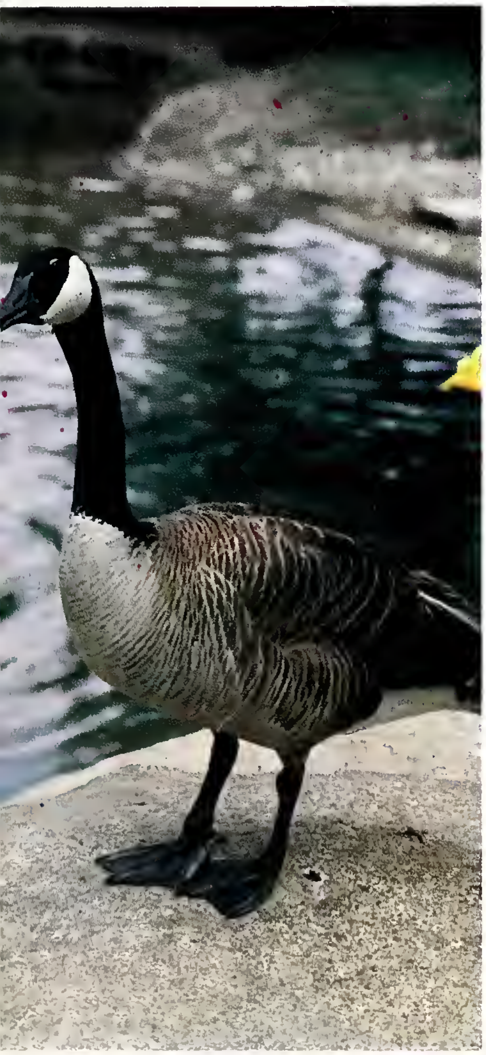
Following the Electronic Trail

by Clany Soileau
Photography by Lloyd Poissenot

scheduled for completion in 1983, will also feature a trapper's camp, ecology building with aquarium for fresh and salt water fish, and reptiles. "We felt it was important to set aside a Louisiana section in our zoo," explains Ronald Forman, Audubon Zoo director. "It will become the heart of the zoo and will be very unique."

Although not as big in size nor as detailed in scope, the Alexandria Zoo has plans for "Louisiana After Dark" an exhibit of nocturnal animals such as raccoons, alligators, fox, skunk, and snakes.



Examples of native or endangered species seen in Louisiana zoos are: the brown pelican, our state bird, once plentiful and now endangered; the roseate spoonbill, a flaming red marshland bird; the Canada goose which no longer migrates in great numbers as far south as Louisiana; the bald eagle, our endangered national bird; and the bobcat, valued in the wild for its desirable fur.

Flags for each of the original Louisiana Purchase states fly over the entrance to the Monroe zoo.

A whooping crane memorial at Audubon Zoo commemorates the hatching of rare whooping crane eggs which made preservation history a few years ago.

Exotic wildlife from around the world and Louisiana native species are exhibited at four zoos, each with individual specialities: the Louisiana Purchase Gardens and Zoo in Monroe; Audubon Park and Zoological Garden in New Orleans; Alexandria Zoological Park; and the Greater Baton Rouge Zoo.

In addition to native and endangered species, Louisiana zoos of course feature exotic animals and birds from Africa, Asia, South America, indeed from around the world. Children love the standard lions, tigers, giraffes, elephants, hippos, and performing monkeys galore. Animals range from the usual to the unique. Consider the baby Atlas lions from Morocco at the Baton Rouge Zoo, thought to be extinct and displayed by only six zoos in the world. Or Baton Rouge Zoo's very endangered snow leopards from the Himalayan Mountains in Asia. Lemurs, residing in several zoos, come only from the southwest African island Madagascar; they too are highly endangered.

Consider the African exotic hoofstock collection at Baton Rouge Zoo, one of the finest of its kind in the country, particularly for its size. Consider the Monroe Zoo's cassowary, monstrous ostrich-like bird from New Guinea and nothern Australia with killer claws and one of the largest eggs in the world. Monroe zookeepers are rightly proud of the successful cassowary hatching. Very rarely do successful mating, egg laying, and hatching occur in zoos.

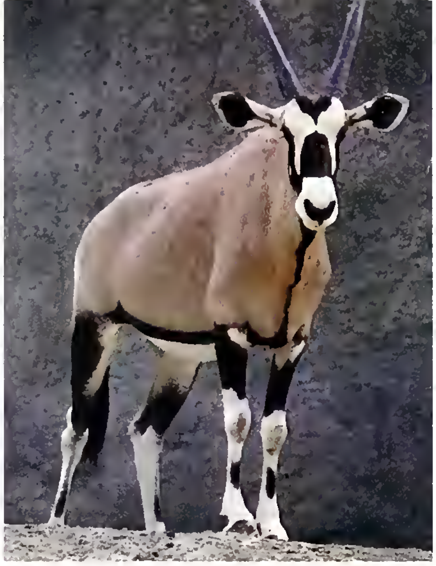
The Alexandria Zoological Park features a large number of native Louisiana species such as the brown pelican.

Consider learning about snakes, both native and exotic, poisonous and nonpoisonous at Monroe's extensive reptile collection, perhaps the most complete in the state.

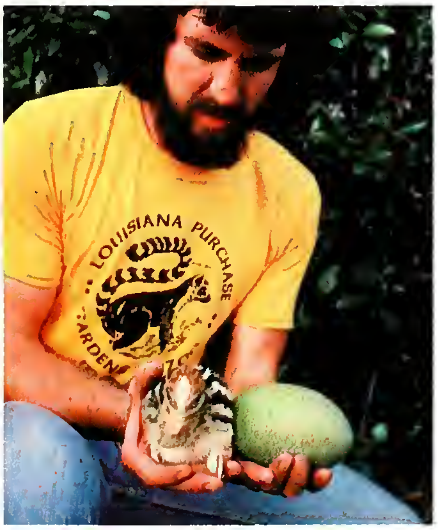
See the world's largest rodent the capybaras at Alexandria. Each Louisiana zoo has something unique to offer; each has species rare in the world and not common to the other three zoos and even zoos throughout the country.

One thing the four zoos do share is a joint project to build a breeding farm. Because of carefully controlled restrictions on the import of endangered species and other animals and because of the tremendous expense of buying these animals (a rare pair of snow leopards, for example, might be worth $27,000), such an operation is a modern day necessity. A commonly owned and operated breeding farm will supply animals for all four zoos, for trade with zoos in other states, as well as help animal species nationally and internationally. Breeding farms are already working successfully in other areas and all zoos in the country are cooperating in a common Species Survival Plan. Initial plans for the farm are off the drawing board; a committee is presently selecting a site. The fate of many species depends on zoo breeding programs.

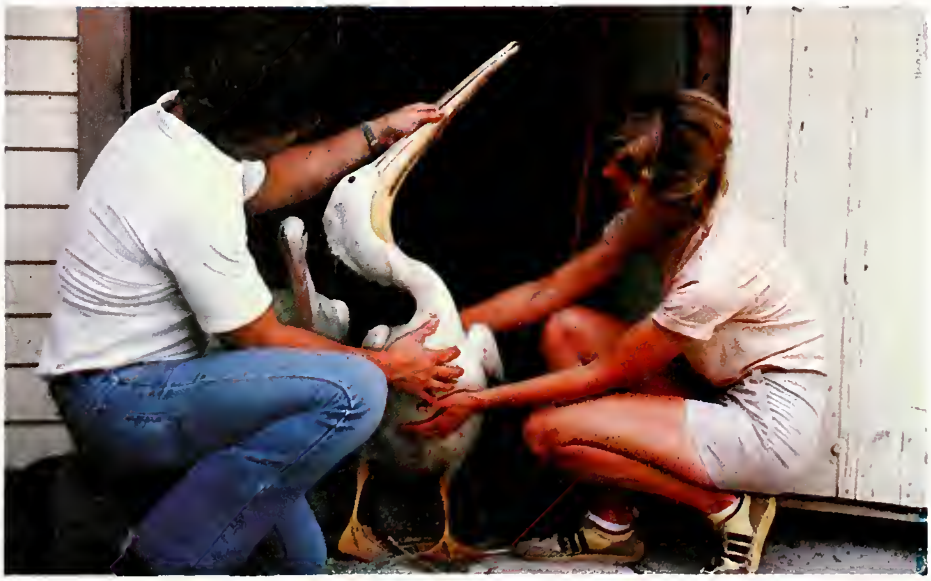
Louisiana's zoos, with major renovation and expansion in the last decade, have come up to par with some of the finest zoos in the country. They have come to earn the respect of professionals in the zoo business. Audubon Zoo was selected as one of the top five zoos of its size in the country by the American Association of Zoological Parks and Aquariums (AAZPA). Audubon Zoo is the largest of the state's zoos and has some of the most modern, natural-like cageless animal habitats. George Felton, director, Baton Rouge Zoo, was recently elected to serve on the board of directors of the AAZPA, along with twelve others mostly from larger zoos like The Bronx and San Diego. Both Monroe and Alexandria Zoos are fine collections and are respected by fellow zookeepers, particularly for their size.



The Greater Baton Rouge Zoo can rightfully boast of its fine exotic African hoof stock collection, one of the finest in the country.



Carl Watson, assistant Monroe zoo director, displays a baby cassowary and its egg, one of the largest in the world.



Dr. Andy Gutter, veterinarian, and Anne Orlowski, head of the Wild Bird Rehabilitation Center at Audubon Zoo, inspect a freshly stitched white pelican's pouch. The bird was injured in the wild and was treated as part of the bird rehabilitation program. Such programs are common at all four Louisiana zoos.

They each serve a multi-parish area offering thousands of children and adults an educational opportunity they would not otherwise enjoy. They fill definite and necessary needs in their local communities.

The purpose of zoos has shifted drastically in recent years. Besides conservation (breeding and preservation of species) and recreation, zoos have made a commitment to education. All four Louisiana zoos stress education as part of their program. From children's barnyard animal petting houses to elephant rides to lectures on animal diet and habits, learning experiences are wide ranged. Education curators regularly set up special programs for all ages, children especially but adults too. At least one zoo has conducted teacher training programs, some courses with credit, on how to use the zoo as a classroom. Music, festivities, and games are often integrated into special events such as the celebration of zoo day. All the zoos recently had special events in conjunction with the proclamation by President Ronald Reagan and Governor David C. Treen of June as National Zoo Month.

Many volunteers from the local communities join together to participate in these education programs as assistant instructors or docents. Their selfless donation of time helps zoo educators reach many more people through expanded programs.

Zoos are a recreational resource and an educational experience. They are also links in the chain joined together to preserve the world's vanishing wildlife. Zoos provide a place for wildlife . . . and people.

The success of Louisiana zoos can be greatly attributed to the enthusiasm of their hardworking staff members. Zookeepers, groundskeepers, veterinarians, dieticians, educators, and many other professionals are charged with responsibility for the feed and care of quite a large number of zoo residents. There is much work and special care behind the scenes that zoo visitors never see. Special diets are prepared for each animal to ensure that all necessary vitamins and minerals are supplied. Often attempts are made to simulate natural foods found in the wild. Medicines must be dispensed, injuries attended, and general health maintained. A nursery providing care for new mothers and their babies is always an essential branch at every zoo. Cages must be cleaned and regular feedings occur daily, seven days a week. Caring for the animals is a full time job. Zoo workers come from a variety of educational backgrounds; many have advanced degrees in wildlife management, zoology, biology, and related fields. Others have picked up most of their knowledge through on-the-job experience.

Modern day zookeepers understand that in nature all things are connected, that if the wildlife of the world disappears, the human race will feel the results. Louisiana's zoos exemplify the belief that only through an understanding of our native and exotic species can we insure their survival and ultimately our survival. Zoos provide recreation, conservation, and education . . . and an urban place for wildlife.

Fetchin' Frogs

By Judy Hughes
Photography by Lloyd Poissenot

Pick a night. Pick a bayou. Pull out your pirogue and put on your bull-eye . . . and you're ready for a night of froggin'.

It's an ideal summer activity. Most of the other hunting seasons are closed. You do it at night when the air has cooled. And you don't need much equipment—no need for a gun or fishing pole, ammunition or tackle.

Frogging has long been a popular sport in Louisiana as well as many other places around the world. It's fun and it's food for the table. The meaty hind legs of bullfrogs taste a lot like chicken—some say better. They are said to contain a higher percentage of protein than either chicken or fish. According to the menus of fine restaurants around the world, froglegs are indeed a popular delicacy.

To the many Louisianians who participate in the sport of frogging, the joy is not just in knowing how good the fried legs will taste, but in the adventure of slipping along the edge of a bayou and grabbing the handsome amphibians off the bank, or maneuvering through the swamp and snatching them off of logs and stumps.

Frogging is done differently by different people. The basics are that it's done at night with lights (usually headlamps) used to spot and "freeze" the frogs so they can be approached and caught.

Some people prefer to paddle slowly along a bayou in pirogue. Others use a light boat with a small outboard motor. Then there are those who simply go froggin' on foot. Some people use mechanical grabbers or a long-handled net to catch the frogs. These are especially useful for snatching frogs high on the bank, under brush, or behind a log. The most common and most successful method, however, is to stretch out over the front end of the boat and grab the frog with bare hands.

Frogging regulations have always been fairly clear-cut: a closed season in April and May, no gigging or spearing or use of any device that punctures the skin of the frogs, and no firearms allowed in possession when frogging at night.

The 1982 Louisiana Legislature has changed these regulations. Now you can hunt frogs in April and May as well as all other months, and you can use a gig or spear or similar device.

April and May had been closed to frogging until now because of the belief that most bullfrog spawning occurred during these months. It is now known that breeding is not confined to this time.

"Spawning can occur anytime between early March and August; the time varies in different parts of Louisiana depending on temperature and other factors," says Bennie Fontenot, chief of the Department of Wildlife and Fisheries Fish Division. "We now believe that frogging can be allowed throughout all twelve months of the year without hindering frog reproduction."

The law prohibiting the use of gigs or other devices that puncture the skin of the frog was established before ice and refrigeration existed as we know it today.

"In the past," explains Fontenot, "gigging and spearing of frogs presented a health hazard because the dead frogs, with open wounds, could easily spoil in the summer night. Today, frogs can be kept in an ice chest

To many Louisianians, the joy of frogging is in knowing how good the fried legs will taste and in the adventure of slipping along the edge of a bayou in pursuit of fine summer sport.

or brought home and refrigerated before they spoil."

Whether gigs or spears are legal or not, an advantage of not using them is that with the live-catch methods, frogs that escape do so unwounded and small frogs can be released unharmed.

The law that prohibits the carrying of a firearm while frogging at night still stands. And there is still a size limit on frogs taken commercially. It prohibits the taking of common bullfrogs smaller that 5½ inches (body length) or southern bullfrogs smaller that 3½ inches.

While there's no size limit for sport froggers, they too usually pass up or release small frogs, bagging only the large ones since they have more meat on them.

There's no limit on the number of frogs that can be taken in a night. The number bagged depends on the location, amount of time spent frogging, abundance of frogs and skill of the hunters. It's possible to catch quite a sackfull, which adds up to a lot of froglegs and a lot of good eating. Some trips are not so successful. Sometimes only one or two frogs are caught. But like most other types of hunting, the venture is a rewarding experience regardless of the number of frogs bagged.

Unlike most other hunting experiences frogging is done at night, and the sights and sounds of a night on a bayou or in a swamp can be both intriguing and relaxing. If the sky is clear, you can be easily mesmerized by the beautiful expanse of stars overhead and their reflection on the water. With a little light from moon or stars the trees and other vegetation form mysterious silhouettes.

Aside from the booming calls of the bullfrogs (which help lead you to your quarry) the sounds of other critters abound...chirping, croaking, peeping, grunting. In the beam of your frogging light, the tiny eyes of a million spiders glow. And in many frogging locations alligator eyes continually appear and disappear in front of your boat.

Since many animals are nocturnal it's not unusual to see other wildlife during a frogging trip, especially if you're in a quiet pirogue. A raccoon may be feeding along the water's edge or in a tree. A deer browsing silently may stare back at you unwarily in the out-of-season summer night.

Unfortunately you'll see certain critters you wish you wouldn't...gnats and mosquitoes. Insect repellant is vital for froggers.

Just who are the creatures that are the object of the hunt? They are two species—the common bullfrog *(Rana catesbeiana)* and the southern bullfrog or pig frog *(Rana grylio)*, also known as the lagoon frog or grunter.

The common bullfrog, which can be up to eight inches in body length, is the largest frog of North America. It's found throughout the central and eastern United States and has been widely introduced elsewhere because of its popular, meaty hind legs.

The pig frog gets its name from the short, explosive piglike grunts it makes when calling. This frog is only found in the Southeast which is why it's also called the southern bullfrog. It grows to a little over six inches in length.

The pig frog is the most aquatic of the bullfrogs, spending its time floating among water hyacinth, cattails or other water plants. The common bullfrog usually sits on the bank at water's edge or on a log. When frightened it will as soon flee into nearby vegetation as take to the water.

The pig frog feeds extensively on crawfish. The common bullfrog has a more diverse diet, including insects, minnows, other frogs, and crawfish. Large common bullfrogs have been known to catch and swallow small birds, young snakes and turtles.

Common and southern bullfrog numbers have declined in recent years in Louisiana, but not because of too much hunting. They have declined mostly because of habitat changes.

Conditions in Louisiana originally were ideal for frogs. Large expanses of shallow swamps, plus periodic overflow of the major rivers which left countless small lakes and ponds scattered over the alluvial bottomlands of the state, produced bumper frog crops. But in recent decades, extensive drainage, dredging, levee building, stream alignment, and lake impounding has destroyed much frog habitat.

Because of the decline in frog abundance in Louisiana, and because frog numbers are unpredictable from year to year and area to area, the majority of froglegs served in Louisiana restaurants are not Louisiana frogs. They are imported from India, Japan and Mexico.

Even if it doesn't meet the commercial demand, there is still an abundance of frogs in Louisiana for the sport frogger. Oh, it may be a bit harder today to find a frog "hotspot" than it was in bygone days...but that just adds challenge to the sport.

Yes, there are plenty of frogs available for those who want to enjoy a fun summer night activity and be rewarded with a platter of tender and delicious fried froglegs...So, pick a night...pick a bayou.

WHEN THE OLD FISHIN' HOLE AIN'T WHAT IT USED TO BE

By Bennie Fontenot with Clany Soileau
Photography by Lloyd Poissenot

Some of the state's largest bass and bream are caught in Louisiana farm ponds. These privately owned fishing holes can be managed for optimum fish production.

Radio telemetry is an important modern day wildlife management technique. Through the use of electronic signal emitting devices attached to an animal and a remote receiver for monitoring, biologists can learn more about wildlife habits and behavior.

The helicopter weaved back and forth cutting a path through the hot muggy air above the green glistening marsh.

Inside, the biologist listened intently to the signal coming in over his intercom headphone.

"Turn to the west," he told the pilot.

Beep . . . Beep . . . Beep . . . the signal grew stronger.

"That's it! She's down there somewhere," the biologist said and the pilot slowed and held the copter on a slow steady course above the marsh. The green vegetation rippled in waves under the blast from the chopper's blades.

"There she goes," the pilot said excitedly and turned the copter on its side so he could see the mottled duck as it flew up out of the covering vegetation into the air, trying to escape the huge noisy intruder above. The tiny brown cylindrical transmitter was clearly visible on the duck's back.

The biologist scribbled the duck's location in his notebook and the helicopter lifted up and away. Just a routine incident showing how electronic telemetry is helping biologists study Louisiana's wildlife and fisheries resources.

The use of electronic signal emitting devices that can be attached to an animal and then followed by a remote receiver is a fairly new technique in wildlife and fisheries studies, fairly new, that is, in that it apparently began sometime in the late 1950's.

Telemetry is a word made up of the Greek roots for measuring and acquiring information from a distant source. To better understand how telemetry works think about this one example of telemetry which goes back at least to the days of the Roman empire.

The Romans used a cylindrical metal device powered by animal motion and gravity to follow the movements of certain important animals. The device emitted a regular sharp sound produced by a small striker. The strength, duration of intervals between sounds, and tone of the device varied according to the speed and regularity of the animal's motion.

The receiving instrument was selective, highly directional, and subject to environmental distortion such as wind, rain, or humid air.

The transmitter was a cowbell and the receiver was the human ear. There are a lot of similarities between these two elements and today's sophisticated electronic instruments. However, the "bell" and the "ear" have gotten awfully complicated.

Think about the problems that a wildlife and fisheries biologist encounters in trying to learn about animal behavior. First of all, how do you find the animal to study it and once you have found it how do you keep from losing it? And if you can watch it, how can you tell that your presence is not affecting the animal's behavior? Are you interfering with its normal activities?

If you're trying to study an animal such as an otter or an alligator it's quite likely to just disappear into the nearest bayou and swim away. If you're studying a bird it may just fly away. How would you like to try to follow a raccoon as it moves out into the marsh to feed at night?

Because of problems like these, biologists for years had to rely on such methods as capturing the animal, marking it in some way so it could be recognized later, releasing it, and then hoping that it would somehow be recaptured at some time in the future.

For example, alligators were studied in this fashion for years. Gators were caught, marked or tagged, released, and occasionally recaptured. At that point biologists could identify the animal and tell how much it had grown and how far it had travelled from the point where it was originally tagged. However, they had no idea what the animal had been doing or where it had been in the intervening months or years.

Tagging continues to play an important part in the study of numerous species including shrimp, speckled trout, various migratory birds, and most large terrestrial animals. Tags are attached to these various species and later when they are netted, or taken by hunters, or recaptured by biologists it's possible to discover much important information about migratory patterns and life history by comparing the condition of the animal at the time it was originally tagged to its condition at the moment it was retaken.

But electronic telemetry has dramatically changed the way biologists study wildlife and fisheries behavior. Today, most larger animals can be caught, fitted with a telemetry device, and released. The transmitter emits a signal which can be picked up by a receiver. The signals are directional so the animal's location can be determined by the direction in which the signal is the strongest. These signals can be either followed directly to the animal or the location can be determined by triangulation. That is, fixes of the signal can be taken with a compass from two or more different directions and where the lines meet is the animal's location.

Today, telemetry devices are used generally in the same types of studies for all animals. They are extremely valuable for determining habitat preferences (where the animal likes to live), home ranges, and seasonal movements and daily activity patterns. Given this information, biologists can correlate an animal's movements with available environmental factors such as water salinity, water depth, vegetation types, and human intrusion into home areas. For example, do bobcats move about more in open areas or dense woods? Do otters like brackish marsh better than fresh marsh?

Telemetry is now an important part of the research programs of all those who are studying wildlife. The Department of Wildlife and Fisheries has cooperated at various times with the wildlife schools at Louisiana Tech and Louisiana State University and the U.S. Fish and Wildlife Service in studying various species including the red wolf, the purple and common gallinule, Mississippi sandhill crane, the gray and red fox, and the coyote.

Telemetry studies have had direct impact on the management programs for various other species.

Ted Joanen, research leader at Rockefeller Wildlife Refuge, points out that telemetry has played an important role in the state's management plan for that mysterious reptile the American alligator.

In the late '60's and early '70's, studies on mature gators showed that males and females tend to move together into large open bodies of water for courtship and breeding during late spring and early summer. Therefore, a marsh management program must include water level control measures so the animals will find the environment suitable.

Another study found that nesting females used the open water canals, bayous, or large ponds almost exclusively during courtship and breeding. The rest of the year they spend their time in isolated dens in the marsh. The females tended to stay in an area no greater than 40 acres surrounding their nest.

Adult males on the other hand tend to move over very large areas sometimes travelling several miles in one night. Most males prefer open water areas such as canals, bayous, and large marsh ponds during the entire nine months or so that they're active. Alligators are more or less dormant during the winter.

Another study found that immature females prefer natural marsh area over open water most of the time and especially during the fall.

What use was made of this information? To preserve the sexually mature female gators it was clear that a fall harvest season that was restricted to open water areas would be best. Because of this, Louisiana's alligator harvest takes place during September each year and under very strict guidelines. Some 75% of the gators taken in the harvest are adult males.

As the alligator population grew under proper management, department biologists relocated thousands of alligators from areas with heavy populations to areas with less dense populations. An occasional problem resulted when an adult gator was moved only a short distance from its home site. Adult gators have a very strong homing instinct and will travel 50 miles or more to return to their home area.

Because of this homing instinct biologists needed to know if it was worthwhile to relocate gators from one area to another. A telemetry study of immature alligators in northeast Louisiana found some answers. For immature alligators there was no appreciable difference in daily or seasonal movements for native or transplanted alligators. Apparently, the homing instinct is part of the sexual maturity process so if an alligator can be moved before it's sexually mature it won't attempt to return to its home area.

However, it seems clear that removing nuisance adult alligators from ponds or sudivisions and transplanting them only a short distance away is a futile gesture. The gator will probably return.

Using telemetry to understand an animal's behavior sometimes provides unexpected answers. Raccoon predation is a serious problem for the alligator. Raccoons raid alligator nests and eat the eggs, sometimes destroying all the eggs in a nest in one night's feeding.

A study of raccoon movement and feeding patterns in the early '70's showed that raccoons tend to feed on the edge or shoreline of the existing open water. Predation of alligator nests was most serious when the marsh water level dropped and the raccoons moved into the dense marsh looking for food.

The management conclusion was simply to make sure water level control structures kept the water level in the marsh high during dry periods. With high water the raccoons did not go into the dense marsh as often and not as many gator nests were raided.

In the near future Joanen hopes to carry his research just a little bit further. He would like to study alligator hatchling survival by hooking a transmitter to every baby alligator in a nest and tracking each one as it grows. Given what he knows now, a baby alligator leads a precarious existence and Joanen would like to know more about what happens to small gators after they go off on their own.

Greg Linscombe, chief fur researcher for the department, described several studies involving radio telemetry that are being used to gather data on Louisiana's fur animals. These particular studies have direct economic importance since the fur industry is worth some $20 million a year to the people of Louisiana.

Radio telemetry transmitters are being surgically implanted in the abdominal cavity of river otters so these important animals can be followed in the wild. Implanting the telemetry device inside the animal's body is becoming a more common practice in the study of many species including some birds, grizzly bears, and whitetail deer. Putting the transmitter inside the animal's body does not interfere with its behavior and sometimes is the only way to overcome the difficulties of finding a way to attach a transmitter to such an animal as an otter with its short stocky limbs and thick torpedo-like neck.

Louisiana has very high densities of the river otter, a very important fur animal, but very little is known about its life history. Linscombe hopes that the study will not only answer questions about movement patterns and habitat preferences but also whether marsh drilling activity affects the otter.

Biologists at Toledo Bend Reservoir have begun a study in which tiny ultrasonic transmitters are surgically implanted in the abdomen of striped bass. These transmitters emit a signal which allows biologists to follow the fish's seasonal movements.

Another ongoing study in north Louisiana hopes to find out how timber cutting practices relate to bobcat populations and movements. The hypothesis is that bobcats do better in clearcut areas than in older even aged forests and this is being tested.

One thing that has been learned is that bobcats are territorial and solitary. The range territories of male bobcats normally do not overlap. Male otters on the other hand seem not to be so territorial and they do not fight to defend territory.

Radio telemetry devices are valuable for determining animal habitat preference, home ranges, seasonal movements, and daily activity patterns.

Another study using radio telemetry was designed to find out if marsh burning affected the size or location of the nutria population. Trappers were reluctant to burn off dead marsh vegetation during the winter, even though it's a good management tool, because they were afraid burning would drive the nutria out of their trapping areas.

Linscombe said results showed that nutria are not really hurt by the fire. They just get out of the way of the fire and then as the marsh grows back out they return to their original home range.

Jerry Farrar, deer study leader, points out that telemetry studies in the '50's and '60's were very important in that they verified everything that had been learned about whitetail deer through earlier studies using marking or tagging and recapture.

To sum up deer movement, Farrar said the animals don't move very far, usually their range is confined to a square mile or less. Does, fawns, and yearlings sometimes combine in small family groups but by and large mature deer move through the woods alone. Males tend to be a little more territorial in their behavior, especially during breeding season, but does and fawns will overlap in their range.

Such studies are very important in managing deer. For example, given population estimates and understanding deer life cycles and movements, game managers know when a hunting season should begin and end. Further, how far an animal ranges determines whether it's feasible to even attempt a game management program. For example, by keeping to a small area deer can benefit from a management program involving such aspects as game law protection, selective harvest, and habitat improvement.

However, Farrar points out that animals such as a cougar may range over distances of up to 90 miles. It's almost impossible to try to manage a smaller area for a cougar population because the animal just won't be there to take advantage of whatever you might try to do for it.

Other studies have shown that regular seasonal high water in low areas doesn't pose much of a problem for a deer population. The deer simply move away as the water rises and return as it recedes. A study such as this would be difficult without telemetry.

Biologists are now trying to find out the effect on deer movement of the artillery firing on Fort Polk.

Several projects on the wild turkey have not provided a great deal of information to date but Dan Dennett, turkey study leader, has plans for an ambitious project next year which will involve monitoring some 20 birds to study the animal's behavior in the breeding season.

Tommy Prickett, quail study leader, and the Cooperative Wildlife Research Unit at LSU have just completed a study on range and habitat preferences of bobwhite quail. Prickett is also planning a study of the range and nesting success of the newly released pheasants in southwest Louisiana.

Biologists using telemetry gear in Louisiana face some special problems. The high, almost tropical, humidity, saline water and dense mineral-rich vegetation all combine to cut down on the range and effectiveness of radio transmitters. More and more biologists are turning to using planes and helicopters to track their study animals. Fisheries biologists face a special problem in that the animal they're studying lives underwater and in Louisiana's salty and mineral-laden water a radio transmitter has almost no range.

Because of this, fisheries scientists are turning to an alternative transmitter. Don Brumbaugh of Sonotronics in Tucson, Arizona is one of many people who are devising ultrasonic transmitters for use in fish and wildlife studies. Such transmitters have been used in studies of largemouth bass, pike, walleye, sea snakes, sharks, crabs, lobsters, salmon and eels.

"Ultrasonic transmitters have shown fisheries biologists things in the behavior of fish that they never imagined," Brumbaugh said.

An ultrasonic transmitter sends out acoustic energy into the water much like shouting real loud and at a high pitch. Radio transmitters emit electromagnetic energy and although they can work underwater they are very affected by the chemical content of the water. Water containing dissolved minerals reduces their range drastically. Ultrasonic transmitters are the same sort of equipment used in naval sonar gear and are very effective underwater.

With data compiled through the use of radio telemetry, biologists can establish management programs for numerous wildlife species.

Department fisheries biologists have recently implanted ten striped bass with ultrasonic transmitters and the fish are now swimming around in Toledo Bend Reservoir.

The research was spurred on because of fish kills in which 250 to 300 striped bass, all in the 12 to 20 pound class, died in the summers of 1979 and 1980.

Biologists believe this may be related to the fish's desire to seek out cooler water during hot weather. When it finds the cooler water it tends to stay in that temperature strata even to the point of refusing to pursue food fish into layers of warmer water. This preliminary hypothesis holds that the fish restrict themselves to this strata of cooler water and become weakened due to not feeding. They are then susceptible to parasites on poor quality water, including low oxygen levels.

Kenneth Lantz and Doug Adams are now studying the fish and following them around the lake with the use of special receivers. When they find the fish they can determine how the different seasons of the year and water temperature affect their movements throughout the lake.

These transmitters have a temperature probe which extends out of the fish's abdomen. As the temperature varies, the interval between signal pulses grows shorter or longer and biologists can convert this changing time interval into differences in water temperature.

The technology of telemetry in wildlife and fisheries research is evolving so rapidly that the future is apt to bear little resemblance to the

Judy Hughes

Signals emitted from tiny transmitters attached to an animal are picked up by a remote receiver monitored by a department wildlife biologist.

past, at least in terms of what is technically possible. Further, the number of species being studied is growing constantly.

Stan Tomkewicz of Telonics in Mesa, Arizona said "Name any species and I'll tell you if it's being studied. You could probably name any large animal species and someone somewhere in the world is studying it using radio telemetry."

And that includes, in addition to those already mentioned, loons, elk, musk ox, moose, snakes, reptiles, amphibians, whales, eagles, caribou, Chinese panda bears, grizzly bears, polar bears, sea turtles, Malaysian elephants, rhinoceroses and walruses.

Tomkewicz described a remarkable project scheduled to begin this summer. In a joint effort between the United States and France, a humpback whale off Newfoundland will be fitted with a radio transmitter. As it moves along its migratory route the transmitter will record such information as water temperature and the length of time the whale is underwater during a dive. At intervals the information will be broadcast up to a satellite which will then relay it to a facility in Alaska which will then send it to Washington, D.C., and then on to France.

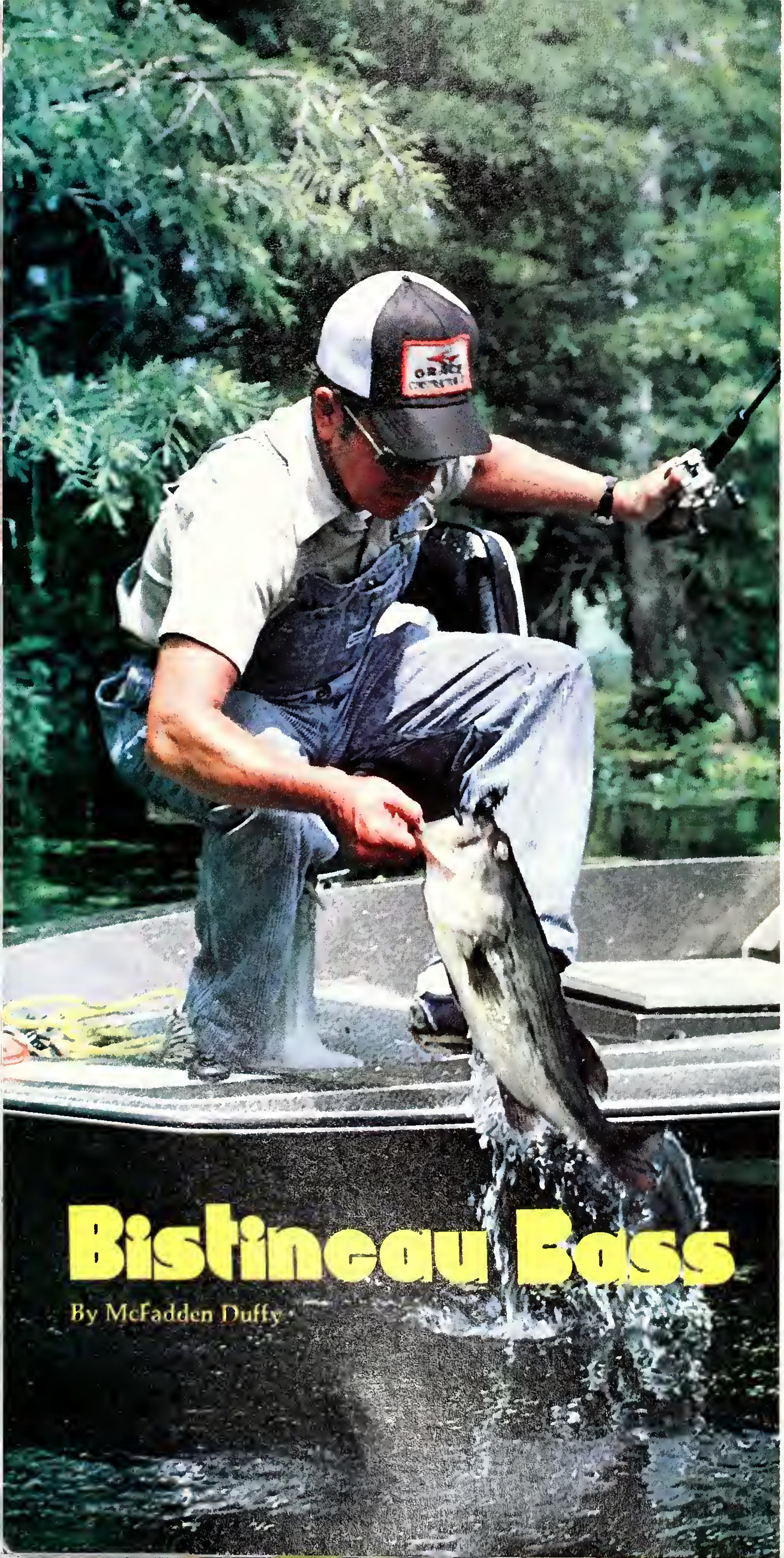
This study shows how sophisticated the available technology can be. However, current and future projects are limited by how much money is available. Transmitter implants can be designed to signal body temperature, blood pressure, and heart rate, although with current technology these devices are expensive and not always as reliable as other units.

Biologists can use simpler and time-tested equipment to equip a deer with a transmitter which will tell whether it's feeding or not (actually, whether its head is up or down). A transmitter can tell whether an animal is dead or alive. These are called motion sensors and are designed so that as the animal moves it broadcasts with a certain time interval between pulses but if the animal doesn't move for a set amount of time, say 6 hours, the transmitter begins sending out signals with a different pulse interval. Biologists can then check the location and condition of the animal. Such transmitters have been used in studies of whitetail deer fawn mortality.

Motion sensor transmitters have been implanted in the vaginal cavity of pregnant deer. When the fawn is born the transmitter is pushed out and after lying on the ground for a time the transmitter changes pulse intervals signalling the fawn has been born.

Obviously, one problem faced by telemetry designers is finding an adequate, reliable, and small power source. Advances have been made in battery design but battery failure does still occur. One answer to this is solar power and various units have been equipped with solar powered transmitters. Such units have been used on turkeys in Louisiana.

It's clear that in the future of wildlife and fisheries biology electronic telemetry will play an even more important role. Man will be able to learn more about the animals that swim, walk, fly, slither, and hop than would ever have been thought possible some years back. This may be the closest we'll ever get to being able to talk to the animals.



Bistineau Bass

By McFadden Duffy

Created in 1938 when an earthen dam was constructed across Bayou Dorcheat, Lake Bistineau was a fishing hotspot in northwest Louisiana for a number of years. Then, like many impoundments, sportfishing began to decline. Elimination of commercial netting in 1978 gave the big lake a shot in the arm and it is coming back as a topnotch bass lake.

Photography by Lloyd Poissenot

From Shreveport to Slidell, from Lake Providence to Lake Charles, there's hardly a bayou, stream, river, lake or impoundment where freshwater anglers can't take bass. They're found everywhere.

Some areas of the state may offer better bass fishing than other spots, but anglers do not have to travel far in Louisiana to spend a session with one of America's most abundant and prolific freshwater game fish. They're available for the taking, and dedicated bass anglers catch them spring, summer, fall and winter.

Generally speaking, largemouth bass are found in all lakes and streams, in all of the impoundments, in the borrow pits along levees and roads, in the oxbow cutoffs of the major rivers, in overflow swamplands, and in tens of thousands of farm ponds.

There is little doubt that largemouth bass are sought more than any other freshwater gamefish in the country. They are prime quarry for countless thousands of sport fishermen in the deep South, and there are many bass fishing clubs in Louisiana alone.

Competitive fishing for black bass has become increasingly popular in the past decade. There are national tournaments that attract hundreds of anglers and the attention of tens of thousands of fans.

Professional bass angling has almost reached the same status of pro football and pro baseball. In some of the bass tournaments, anglers are competing for big cash awards. Others pit their casting skill and bass savvy against each other for costly prizes that may range anywhere from brand new automobiles to expensive bass boats, motors and trailers ready to roll for the lucky winners.

This bass fishing yarn is more than just an article on fishing for largemouth bass, or tournament angling on a good bass lake. Woven into the fabric of the story is some solid information on lake management that played a key role in Lake Bistineau's recovery.

In early February there was a news release from the Bass Anglers Sportsman Society (B.A.S.S.) which is headquartered in Montgomery, Alabama. It was organized in 1968 to fight pollution and assist state and national conservation agencies in their efforts, and to teach young people good conservation practices. It is dedicated to realistic conservation of our water resources.

It has a large national membership and is best known perhaps for its annual series of bass fishing tournaments which attract the country's leading professional bass anglers, culminating in the Bass Masters Classic which properly can be considered the biggest tournament in the country.

The news release from B.A.S.S. revealed that the Louisiana Invitational Tournament in February would be held on Lake Bistineau. The fact that Harold Sharp, tournament director for B.A.S.S. had selected the relatively small northwestern Louisiana lake for a major tournament raised a natural question. The organization has held a number of tourneys on Toledo Bend and sponsored one in the Atchafalaya Basin in 1978. Those represented big waters for big tournaments.

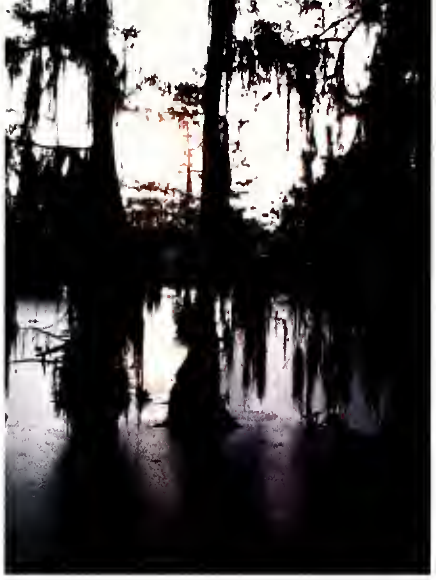
But why Bistineau?

Lake Bistineau, an upland lake, is really an impoundment that sprawls over 17,200 acres of what was once scattered small farms and woodland. It was created in 1938 when an earthen dam was constructed across Bayou Dorcheat, approximately 10 miles west of Ringgold, La.

For about 13 years, the lake covered some 13,800 acres with the spillway level at 137 feet M.S.L. In 1951, the level was raised four feet to 141 feet M.S.L. and the lake reached its present size.

Similar to most impoundments, fishing at Lake Bistineau was very good initially, and the flooded pin oak flats attracted waterfowl. Raising the level in 1951 deepened the lake considerably and "drowned" much of the pin oaks, leaving only the cypress trees which today, draped with beards of Spanish moss, make it a storybook lake with a bassy look.

As sport fishing declined through the passing years, Bistineau was beset with a major problem caused by noxious aquatic vegetation, submersed species in particular.



Bistineau cypress trees draped with beards of Spanish moss make it a story-book lake with a bassy look.

By the mid 1960s, the northern third of the lake, from its upper end near Goat Island down to the Sawmill Flats area, was almost completely infested with a complex of submersed aquatic plants. The water surface was covered with dense stands of duckweeds.

The remaining two thirds of the picturesque lake, south of Sawmill Flats to the dam, has deeper water and in this area most of the vegetation was confined to the shallower shorelines. The same species of noxious plants as in the northern third were present, but coontail and fanwort were the dominant species.

The underwater plants dominating the lake bottom proved difficult, if not impossible, to control by standard hyacinth control techniques. It would have been necessary to treat the entire water column for effective control, and that would have been too costly. And the costly treatments with chemicals would have to be repeated every two or three years. Mechanical and biological controls also were out of the question.

The lake was then being managed by the Lake Bistineau Game and Fish Preserve Commission, with assistance from the Department of Wildlife and Fisheries.

Department biologists advocated a well planned and consistently followed program of water fluctuation. Basically, this constituted dewatering or lowering the level of the impoundment a prescribed amount for a period of three or four months, then reflooding. It represented a multiple-use management tool designed to improve fishing, help control noxious vegetation and improve waterfowl feeding conditions.

The practice recommended by the department is one that had proved beneficial in fish population management. Quite often the fish population of an impoundment tends to get out of balance. This means the ratio between carnivorous and forage fish becomes upset and one group, usually the forage fish becomes dominant.

This is especially true in a body of water that has extensive stands of aquatic vegetation. Those aquatic jungles afford extensive hiding places for the forage species such as bluegill and minnows. Carnivorous fish such as largemouth bass cannot effectively prey on the forage fish under those conditions. Forage fish reproduce at an alarming rate and soon reach the point where they are too numerous for the available food supply. This results in stunted fish populations. Large numbers of panfish are present but few of them reach desirable size.

By lowering the water level to expose large shallow areas, forage fish are driven from their hiding places and concentrated in a smaller area. When this occurs, the carnivorous fish easily reduce the number of forage fish and exert a favorable population control.

When fish are feeding actively, they are easier to catch. Fishing improves greatly and there is always sufficient brood stock available. Remaining fish grow more rapidly.

A valuable fringe benefit of drawdowns is water fertility. The nutrients utilized by the aquatic plants before fluctuation are released when decomposition of the plants occurs, and become indirectly available to fish populations.

Drying and exposing noxious vegetation to sun, air and freezing temperatures assures killing mature plants.

Although the drawdown plan proved controversial at times, the results made the controversy worth criticism it brought to the Lake Bistineau Game and Fish Preserve, and later the Department of Wildlife and Fisheries when it took over full management of the lake in 1969 as the result of a Legislative act.

As fishing improved, additional problems beset the lake. Commercial fishing

and the illegal traffic in game fish taken from the lake threatened its full recovery to a place of importance as a sportfishing lake.

An important forward step was taken, effective January 1, 1978, when all gill nets and commercial webbing were banned from the lake for a period of three years. This ban was renewed January 1, 1981. It proved to be a shot in the arm for sport fishing.

What's the best way to find out how much a lake recovered and what sort of bass fishing it offers?

I called Charles Hoenke, fisheries biologist and lake management project leader at Bistineau. He was born near the lake site and can remember when some of his family grew corn on the edge of the lake before it was raised four feet in 1951, which put the corn fields underwater.

"Is it really as good as it sounds from the tournament results?" I asked.

"If the weather had been better, they'd have caught more fish," he replied. "I was disappointed. The catch should have been better."

"It's really that good?"

"Why don't you come up and try it," he suggested.

I explained that I couldn't, but sent Lloyd Poissenot up that Saturday. Hoenke said he and his sons were willing to take a sort of postman's holiday.

It was a hot June Saturday afternoon when Poissenot, Charles, Paul and Ragan Hoenke slipped away from the landing in two bass boats and began probing the cypress-studded lake for bass.

"Hoenke likes to work those duck weed areas," Poissenot told me later. "He moves around until he finds it just the way he likes it, covering the surface lightly, but with little open patches."

Hoenke would cast a rubber frog or lizard into the duck weed and then work it toward one of the small openings in the duck weed blanketing the water. The frog or lizard left a ribbon-like clearing and provocative wake as it moved through the duck weed to the edge of the clearing.

"They'd come up and smack it like a ton of bricks," Poissenot recounted. "We had a field day there."

While they were fishing, Hoenke told Poissenot that the contract to repair the dam and the gates had been let about 30 days before. The work will be done this winter in all probability, thus allowing continued management of the lake.

"In the past few years, Bistineau has come back as a fine bass lake," Hoenke said. "It's probably better than it has ever been for bass fishing. Managing it through the years has produced a lot of headaches, but I think people have now accepted draw-down as a sound tool of fisheries and lake management. That's the important thing."

Poissenot was impressed with the scenic qualities of the lake. The moss-draped cypress trees forming almost impenetrable caverns of greenery shrouded with gray moss.

Anglers fishing in the B.A.S.S. tournament had found it a most unusual lake in that fishermen could be almost within shouting distance of each other and yet be quite alone in the screening trees.

Just how much productive bass fishing pressure Lake Bistineau can take had been proved early this year when 43 Louisiana pro bass anglers, B.A.S.S. members, helped make up a total field of 250 entrants participating in the 1982 Louisiana Invitational Tournament February 17, 18, and 19, on the big cypress-studded lake.

The professional bass fishermen came from 25 states, as far west as California and Oregon, and as far north as Minnesota, New Jersey and Wisconsin. The invitational offered $75,000 in awards, with the winner to net a $12,000 prize, including a $7,000 Ranger bass boat and $5,000 cash. All of the participants had their fishing caps set to be in the winners' circle at Lake Bistineau State Park No. 1 near Doyline, La., on Hwy. 163.

Harold Sharp, tournament director for the Montgomery, Ala., based fishing organization, revealed how some of the anglers felt about his selection of Lake Bistineau for one of the seven-stops 1982 tournament schedule.

"Where do you fish on Bistineau?" answered Tommy Martin to the question "Where do you throw the bait at the big lake?"

"You fish everywhere. It all looks good," he replied. "There's very little difference in water depth in the lake, and despite it being only 17,300 acres—a bit undersized for a major B.A.S.S. tournament—every inch of it seems to be fishable."

Martin, a 41-year-old guide from Hemphill, Tex., had won the early-bird B.A.S.S. tourney in November on Toledo Bend. He had established a one-day modern society record of 35 pounds, 2 ounces, for a seven-bass catch in the season opener at Toledo. His winning total for 21 bass at Toledo pushed the scales to 81 pounds, 10 ounces.

"If the weather doesn't warm up and the water temperature doesn't climb into the 60s, it will be three tough days of fishing. With a few days of warm sunshine, conditions can change. That's the advantage— or disadvantage—of a shallow lake," Martin said.

A favorite among the 43 home-staters was 31-year-old Ralph Yelverton, a Ringgold, La., painting contractor. Yelverton tied for the big bass honors earlier at Toledo Bend with a 7-pound largemouth. He grew up on Bistineau and along with his brother was considered a favorite.

But Yelverton projected his brother into the potential winners' circle.

"My brother Gary should have an excellent chance," he said. "It's plumb scary what he catches out of here in February," he said. A couple of years back, Gary Yelverton put a seven-bass catch weighing 41 pounds in the boat.

The cast of casters gathered at State Park No. 1 contained some notables in the pro bass fishing world. There was "Bo" Dowden of Natchitoches, La., (see Louisiana Conservationist, September/October 1981). The bass fishing marine dealer was the 1980 Bass Masters Classic winner.

Dowden was given an inside track, not so much for his experience on Bistineau but because he learned to fish on Black Lake near Campti, La., which offers similar bass waters. His ability with the jig and pork chunk were well certified, but some of the pros felt that given a warming spell and the fish moving, fast cranking with crank baits and spinner baits would cover the many fishable spots much faster.

The biggest delegation of pros came from Texas, some 48 seasoned anglers. Included were such notables as Rick Clunn of Montgomery, a two-time Bass Masters Classic winner; Larry Nixon of Hemphill, the 1980 Bass-Angler-of-the-Year; Kenneth Walker of Georgetown and David Wharton of Broaddus, two perennial Classic contenders.

A rubber frog or lizard cast into duck weed blankets and worked toward open water pockets results in a smashing hit and a stringer of big keepers. Bistineau angling is back up to par with some of the state's biggest hotspots.

There was also Roland Martin of Clewiston, Fla., a 41-year-old television show fisherman, who last season caught 277 pounds, 6 ounces, to claim the Bass-Angler-of-the-Year point title, which earns a $2,500 award from Du Pont Stren.

Martin also reigns as the all-time money leader with $166,371 to his credit for pro bass fishing.

During the Bistineau tourney, Lady Luck smiled on Larry Nixon who calls Hemphill, Tex., home now, but was formerly of Bee Branch, Ark. It was a sweet victory for the 31-year-old pro bass angler.

The 1980 Bass-Angler-of-the-Year has bagged four major B.A.S.S. titles in his brief career and pocketed some $79,460 to put him in fourth place nationally among the money leaders in the B.A.S.S. tournament trail record book.

In a sense, Nixon came from behind to win the tourney. On the first day of fishing, he caught only a single weigh-in bass. But like the weather which slowly turned from cold to warm, his angling prowess heated up. In round two, he hauled up a 25-pound, seven-bass limit which put him second to Roland Martin who was pole setter with 33 pounds, 4 ounces on the board.

The third round was Nixon's. He had six bass that went 18 pounds, 6 ounces, and his total weight climbed to 47 pounds, 1 ounce, for the tournament. Roland Martin was second with 40 pounds, 8 ounces.

Nixon's lure choice? A ⅜-ounce rubber skirted Arkie jig festooned with a black No. 11 Uncle Josh pork chunk did the trick. He switched from a black and blue to a red and black jig the last day. Why? "They wouldn't hit the black/blue combination," he said.

"This spot was like a funnel," Nixon said afterwards. "The moss ran out of the cypress into the deeper 10 foot water. It was the last holding place between the deep and shallow water."

Ralph Yelverton of Ringgold finished in eighth place and picked up $1,400 in winnings. His brother Gary was 17th. He picked up $1,000.

Other Louisianians in the top 40 anglers and their prize money included: Charles Branton, Cotton Valley, La., 12th, $1,100; Maurice Jackson, Natchitoches, La., 14th, $1,100; John McKinnon, Bossier City, La., 19th, $1,000; "Bo" Dowden, Natchitoches, La., 21st, $900; Russell Floyd, Haughton, La., 30th, $750; Eddie Bowden, Lafayette, La., 39th, $500; Roy McCollough, Bossier City, La., $500.

The box score for the Bistineau bass tourney was 543 fish taken by participants, 542 released alive, total weight 1,530 pounds, 10 ounces, and a 2.81 pounds per fish average.

The largest bass taken during the three-day tourney was a 6 pound, 15 ounce fish. It netted Jerry Rhyne of Stanley, N.C., a $6,600 Ranger bass boat and trailer and a Humminbird depth sounder. The second and third largest fish weighed 6 pounds, 10 ounces, and 6 pounds, 3 ounces respectively.

By that time, the shadows were beginning to lengthen and Charles Hoenke looked at his watch.

"It's getting late," he said. "Maybe we should look for Paul and Ragan and see how they made out."

Lloyd Poissenot agreed. When they found the other boat he wanted to take a few more pictures. Then it would be time to leave this picture-book lake studded with bright green cypress trees and tucked away in the northwest corner of the state just a hop, skip and a jump from Shreveport. As far as he was concerned, it had been a fun day with Bistineau bass.

Gerald Crawford Photos courtesy of B.A.S.S.

Competitive bass fishing on Lake Bistineau attracted hundreds of anglers and fans at a B.A.S.S. tournament last February. Professional bass fishermen came from 25 states to compete for cash, prizes, and honors.

Conservationotes

Intensive Deer Management Program Update

During the 1981-82 hunting season, 129 cooperators (individuals or hunting clubs) participated in the Department of Wildlife and Fisheries' new Intensive Deer Management Program (see Louisiana Conservationist, March/April 1982, p. 10-14).

"For its first year, the program was a success," says Jerry Farrar, department deer study leader. "On the land enrolled in the program, more than twice as many antlerless deer were taken as are normally taken during the regular either-sex season."

The Intensive Deer Management Program helps private landowners and hunting clubs practice sound deer management to improve or maintain the quality of the white-tailed deer on their land. Participants in the program are issued special tags for the taking of a predetermined number of antlerless deer during the regular deer season, above and beyond what's taken during the either-sex season.

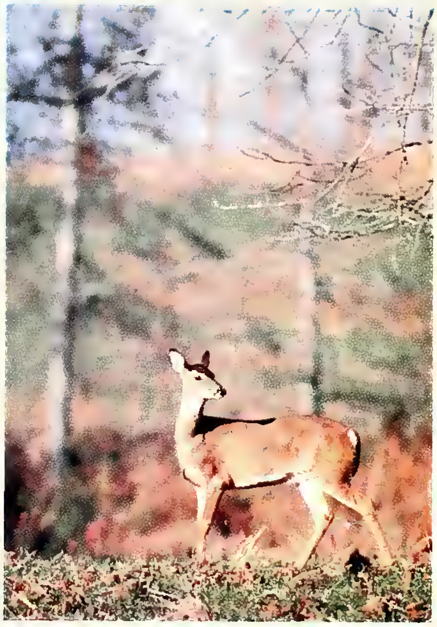
Based on habitat and deer herd evaluations made by department biologists prior to the opening of the 1981-82 deer season, it was recommended that 3,624 antlerless deer be harvested from the lands enrolled in the program.

The number of does taken during the either-sex season was subtracted from the 3,624 recommended by the biologists and the difference determined the number of tags issued to be used during the last segment of the regular deer season. The 129 cooperators killed 1,107 does prior to the opening of the regular season; thus, 2,492 tags were issued. Only 1,529 of these tags were used, however.

The total number of antlerless deer killed on the enrolled lands, with and without tags, was 2,636. This was 988, or 27%, less than the number recommended by the biologists. Not as many antlerless deer were killed as could have or should have been.

"Some of the cooperators simply waited too long to try and use the tags," says Farrar. "They didn't realize how difficult it would be to kill a deer for every tag issued, especially late in the season when the deer are most wary."

"And since this was the program's first year," adds Farrar, "some people were just reluctant to use the tags."



Selective harvest of antlerless deer helps maintain healthy deer populations.

Despite the fact that all tags were not used, the total number of antlerless deer harvested was still twice as many as killed on either-sex days alone. This greater harvest of antlerless deer was an important step toward improving the quality of the deer on the lands enrolled in the program.

"This program was very good for us," says James R. Baker of Pineville, one of the owners of 11,000-acre Winterquarters, Inc. in Tensas Parish. "So many people in the state still object to the killing of does, without realizing how important this is to deer management."

"Although we killed does before," Baker explains, "we only had a certain number of either-sex days. With this deer management program, we have more time to harvest antlerless deer.

"The tags are helpful because they're part of a specific program...we had to sign for the tags, attach them to the deer we killed, and make a report to the department afterwards on the deer killed. This made everybody think about the management on our place. It's a good way to get people to cooperate."

The Waldheim Hunting Club, which leases about 2,200 acres in St. Tammany Parish, was issued 25 antlerless deer tags under the Intensive Deer Management Program last fall and used all but one of the tags.

"We needed to do something for the deer herd," says R.C. Thigpen of the Waldheim club, "we were down to nothing but spikes. It will take some time, but we think this program will help. I encourage others to be involved."

The response to the Intensive Deer Management Program has been so favorable that the department expects the number of participants to double this next year, to some 250 cooperators. One change in the program for next year is that the antlerless deer tags can be used any time during the regular deer season, not just during the last segment as was the case this past year. This will give participants even more time to harvest the recommended number of antlerless deer. With this change, with better record keeping on the part of the cooperators, and with greater willingness to use all the tags issued, the program will be an even greater success this next year and in future years.

"This special program," says Farrar, "is really the only solution for improving the quality of deer in Louisiana. It's an ideal program...we encourage more landowners and hunting clubs to get involved."

If you're interested in participating in the Intensive Deer Management Program, contact one of these Wildlife and Fisheries district offices: P.O. Box 915, Minden, 71055, (318) 377-3575; P.O. Box 4004, Monroe, 71203, (318) 343-4044; P.O. Box 278, Tioga, 71477, (318) 487-5885; P.O. Box 426, Ferriday, 71334, (318) 757-4571; 1213 North Lakeshore Dr., Lake Charles, 70601, (318) 491-2575; P.O. Box 585, Opelousas, 70570, (318) 942-7553; P.O. Box 14526, Baton Rouge, 70898, (504) 342-5875; 400 Royal St., New Orleans, 70130, (504) 568-5612.

Quail Stamp for Collectors

The first annual Quail Research Stamp has been issued by the International Quail Foundation (IQF) in Edgefield, South Carolina. This1982 first-of-issue stamp marks the beginning of a collectible quail stamp and print series to be designed by some of the nation's leading wildlife artists. The first stamp, entitled "Bobwhite Quail", was designed by well-known wildlife artist David A. Maass.

The new stamp series will be offered exclusively to sportsmen and collectors; dollars raised will be earmarked for quail research and education.

The 1982 Quail Research Stamps are $5 each, $20 for plate blocks, and $50 per sheet of ten stamps. The 6½" X 9" image art print is available through major wildlife art dealers and IQF headquarters for $130.

Stamps, prints, or additional information can be obtained from the International Quail Foundation, P. O. Box 550, Edgefield, South Carolina 29824-0550.

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OUTDOOR ETHICS

SOUTHEASTERN ASSOCIATION OF FISH & WILDLIFE AGENCIES

Louisiana and the southeastern United States have some of the finest wilderness terrain in North America. To fully enjoy the outdoor experience available to us, we should protect the settings and value the right of all to enjoy the opportunities of the outdoors.

Remember, a true sportsman values the land he uses and strives to preserve it for future generations.

Do you show consideration for landowners and respect the rights of others? Are you careful not to damage property with your vehicle or to leave litter in the area? Do you abide by the regulations governing your sport?

Well, the next time you go hunting, fishing, hiking or camping, think about the image you project to the public. This reminder comes from the Southeastern Association of Fish and Wildlife Agencies.

More on Outdoor Ethics

In recent times, sportsmen have not always been able to agree among themselves on what is ethical and what is not. Hopefully, such rifts will heal and all can devote themselves to the larger issue of ethical and acceptable conduct.

Ethics begins with adherence to the law, since most unethical acts have been outlawed. It is not enough for the individual sportsman to be "right", he must accept some responsibility for keeping fellow sportsmen in line. Reporting violations may be distasteful, but it is necessary if enforcement of the law is going to do its part in upgrading hunter ethics. Beyond the law, ethics boils down to courtesy and dignity in the pursuit of game.–From Operation Respect, Commission of Game and Inland Fisheries, Richmond, Virginia and the Southeastern Association of Fish and Wildlife Agencies.

Report Game Law Violators
1-800-442-2511 Toll Free

Rules of Ethical Conduct:

Respect the rights of landowners.

Use a dog when hunting birds.

Know your equipment and what it can do.

Match your tackle and ammunition to the quarry.

Shoot only when absolutely certain of your target.

Respect your fellow anglers' casting territory and don't crowd in.

Pick up spent shells, bait container, fouled line, and other litter.

Clean and care for your game and fish properly so that it is utilized and not wasted.

Take only what you need, not necessarily seeking the limit.

Know that just being out there is really what it's all about.—From Operation Respect, Commission of Game and Inland Fisheries, Richmond, Virginia and the Southeastern Association of Fish and Wildlife Agencies.

Lloyd Poissenot

Pie's Potpourri

By Marian "Pie" Pendley

Fried Frog Legs

12 pairs small frog legs
flour
bread crumbs
milk
3 beaten eggs
cayenne
salt

Separate the pairs of frog legs into single pieces. Dip the legs in milk, then in flour, then in eggs, and lastly in bread crumbs that have been seasoned with salt and pepper. Fry in deep hot fat until golden brown.

A little melted butter with a few drops of lemon juice added can be drizzled over the frog legs.

Fried Bass Fillets

Fish fillets
salt and pepper
cornmeal
cooking oil

Wash the fish, salt and pepper the pieces, and roll them in cornmeal. Fill a frying pan half full with cooking oil. Let the oil get hot but not smoking. Fry the fish until brown and serve immediately.

Fried Shrimp and Oysters

shelled and deveined shrimp
oysters
1 cup flour
½ tsp. sugar
½ tsp. salt
1 cup ice water
1 egg, beaten
2 tbsps. oil

Mix above ingredients. Dip shrimp and oysters in batter and drop in deep fat and fry until golden brown. Batter is good to use when frying onion rings.

Hushpuppies

1 cup cornmeal
1 cup flour
1 medium onion, finely chopped
2 tsp. baking powder
2 tsp. salt
½ tsp. black pepper
1 egg
½ cup milk

Mix the first six ingredients together. Add the egg and stir it in. Add enough milk to make a heavy paste. Drop tablespoons of the mixture into hot fat. Cook until done all the way through and golden brown. Drain well and keep warm until served.

Cocktail Sauce

1 cup chili sauce
1 cup catsup
1 tsp. grated onion
2 tbsps. horseradish
¼ tsp. Creole mustard
2 tbsps. finely chopped celery
juice of ½ lemon

Mix all ingredients together until well blended. Chill for several hours before serving.